



The Politics of Pure Space Science, the Essential Tension, Human Spaceflight's Impact on Scientific Exploration

Date
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The Essential Tension

NASA's Creation - 1958

US Public Response to Sputnik

Military Space Disappears

**Eisenhower – Control over Space Policy &
Budget**

Congress - Political Pork/Political Advantage



The Essential Tension

**Space Science Peripheral
National Academy of Sciences vs.
NSF**

**NASA Asserts Control – Space
Science**

**Internal: Engineering vs. Science
Relative Share**



Apollo and Beyond

Conflicting Priorities

Science in Apollo Missions

Apollo Applications Program

The Golden Age –Why?

Space Shuttle Development

“Slaughter of the Innocents”

“Shuttle Compatible”



Shuttle as Space Science Driver

Cheap Flights – Schedule Issues

“Christmas Trees”

**Challenger Accident – Return to
Flight**

Mars Observer’s Death

Decision Time Congress

ScSC vs. ISS – one vote



Human Spaceflight's Burden

“Faster, Better, Cheaper”

Mixed Bag

Explorer and Discovery Programs, Mars

Space shuttle – International Space Station

Recurring Cost Issues

Columbia Accident – 2003



Vision for Space Exploration

Shuttle shutdown 2010 (2011)

ISS completion-abandonment 2015-16

Constellation – Aries, Orion

Space Science support VSE

2010 Congressional intervention

Space Launch System, Orion



Space Science's Lot

Ancillary to NASA's Vision of its Future

This based on NASA actions, not rhetoric

**Decadal Surveys, Campaigns to preserve
missions**

Community put at odds with itself

Times of Economic Stress – space science cut



Space Science's Lot

**Space Exploration now the Priority
NASA needed to break with the shuttle**

**SLS – Beyond Cis-lunar space
Opens door for space science missions**

**Organizational Change:
Spun off – NSF or NAS**

